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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,823	08/06/2001	Derek Priestley	9052-74	8860
20792	7590	09/06/2005	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC			LEWIS, RALPH A	
PO BOX 37428			ART UNIT	
RALEIGH, NC 27627			PAPER NUMBER	
			3732	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/922,823

Applicant(s)

PRIESTLEY ET. AL.

Examiner

Ralph A. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17, 20-28, 30-32, 34-37, 39-41, 43, 44, 46-51, 53, 54 and 57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 12-17 and 57 is/are allowed.
- 6) ☒ Claim(s) 1-11, 20-28, 30-32, 34-37, 39-41, 44, 46-51, 53 and 54 is/are rejected.
- 7) ☒ Claim(s) 43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **Rejections based on Prior Art**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 22, 23, 26-28, 30, 31, 34, 37, 39, 40, 44, 50, 51 and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by Morris et al (US 6,328,567).

Morris et al discloses a system comprising a digital camera (column 6, lines 55-68) for taking colored images, means for relaying the images (column 8, lines 24-31), means for analyzing the color values of the images (column 8, line 65 - column 10, line 56) and means for converting the color values into parameters from which the original color may be reconstituted (column 10, lines 57 – 67).

In regard to the “a single grey reference colour indicator” limitation, Morris et al discloses the use of a single “A1” dental shade tab 109 (column 8, line 59) which is later described as “a light tan color” (column 11, lines 62-63). First in regard to the “single” limitation, it is noted that applicant uses the open term “comprising” in the claims which

indicates that the system may include other elements other than those listed (e.g. black and white indicators). Applicant does not address this issue in his remarks.

In regard to the "grey" limitation, applicant's specification provides little guidance on – i.e. why the color was chosen as opposed to a brown, tan or cream color or even if "grey" is distinct from the tans, cream and porcelain colors artificial teeth that contain a certain amount of gray color. With little guidance from applicant's specification, the tan color of Morris et al is deemed to meet the "grey" limitation because tan inherently includes gray coloring.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 20-24, 26-28, 30, 31, 34-37, 39, 40, 41, 44, 46-51, 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al (US 6,328,567).

In regard to the "grey" limitation, to the extent that the light tan color of Morris et al fails to meet the limitation, it is noted that applicant has provided no criticality in the selection of the grey color as opposed to a tan, cream or ivory for instance. Morris et al suggest that the third color may be any color somewhere between black and white (column 7, lines 45-56), to have selected gray, a color intermediate between black and

white, would have been obvious to one of ordinary skill in the art. Additionally, setting the camera at a given focal length, encrypting data sent via the internet and the use of the Morris et al system to accurately determine the color of objects other than teeth would have been obvious to one of ordinary skill in the art as a matter of routine design and practice.

In regard to the present rejection applicant argues that his system uses only a single color reference whereas the Morris et al system uses three reference colors. It is noted that applicant's arguments are narrower than the claims. The claims use the open term "comprising" which indicates that other elements may be present in the claimed invention including other reference colors.

Claims 4, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al (US 6,328,567) in view of Shahid et al (US 5,967,775).

Shahid et al teach that when trying to determine the color of a patient's teeth that it is desirable to provide for a polarized filter in order to improve the image sensed. To have provided the Morris et al image sensor with a polarized filter in order to improve the image as taught by Shahid et al would have been obvious to one of ordinary skill in the art.

Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al (US 6,328,567) in view of Lehmann et al (US 6,206,691).

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Morris et al fail to set forth much detail regarding the camera used for acquiring the dental images, however, Lehmann et al for a similar dental color analyzer discloses a digital camera having a housing, point light sources 28 and having fiber optics (note Figure 13). To have used a camera having such features as those taught by Lehmann et al would have been obvious to one of ordinary skill in the art in light of the Lehmann teaching of such a camera being appropriate for such a use.

#### **Allowable Subject Matter**

Claims 12-17 and 57 are allowed.

Claim 43 is objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form.

#### **Action Made Final**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (571) 272-4720.

R.Lewis  
September 1, 2005



Ralph A. Lewis  
Primary Examiner  
Au3732